

Remarks

Claims 1-15 are pending. Claims 3-15 are withdrawn pursuant to a restriction requirement. Applicants eliminated a transcription error from the preamble in claim 1. The amendment clarifies the intended subject matter and is primarily a matter of form. No new matter has been added.

The proposed amendment does not introduce a new patentable feature. Rather, the amendment is simply meant to eliminate a redundant phrase mistakenly introduced during prosecution. The amendment addresses the only pending rejection and places the case in condition for allowance. For all of the above reasons, Applicants submit that good cause exists to enter the amendment even though presented after final rejection.

The Examiner rejects claims 1 and 2 under 35 U.S.C. 112(2) as being indefinite for failing to particularly point out and distinctly claim the intended subject matter. The Examiner objected to the form of the preamble as being ambiguous. The amendment set forth above addresses this objection and places this case in condition for allowance.

Claim 4 is drawn to a non-elected species. Claim 1 is a generic claim and now believed to be in condition for allowance. Applicants request that claim 4 be rejoined with the remaining species claims of Group I. Claims 5-8, 11 and 14 are drawn to processes for making the patentable compounds. To the extent that the compounds are patentable, a process for making such compounds must also be patentable. Applicants further request that the process claims of Groups II, V and VIII be rejoined with Group I. Rejoining the groups will be in the best interests of all parties by reducing the number of future applications.

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T-704 P.08/14 F-523

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Applicants submit that the instant application is now in condition for allowance. In the event that minor amendments will further prosecution, Applicants request that the Examiner contact the undersigned representative.

Respectfully submitted,



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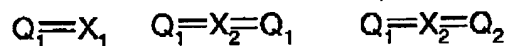
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Amended Claims with underlining and bracketing

1. (Twice Amended) A compound of the formula ~~A compound of the formula~~ (Ia), (Ib) or (Ic)



(Ia)

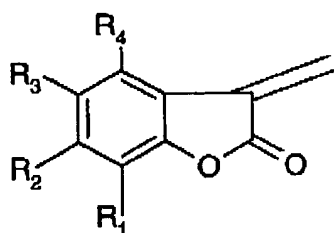
(Ib)

(Ic)

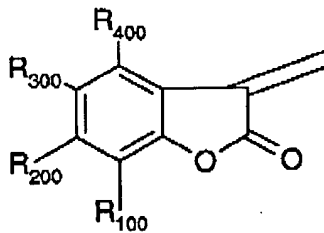
in which

Q_1 is a benzofuran-2-one of the formula (IIa), and

Q_2 is a benzofuran-2-one of the formula (IIb)



(IIa)



(IIb)

in which

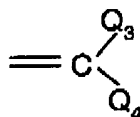
R_1 , R_2 , R_3 , R_4 , R_{100} , R_{200} , R_{300} or R_{400} independently of one another are hydrogen, halogen, hydroxyl, cyano, ether, nitro, an amine, amide, imine, urethane, sulfonamide, ester, carboxylic acid or sulfonic acid radical or carboxylic salt, sulfonic salt or C_1 - C_{24} alkyl, C_1 - C_{24} alkoxy, C_1 - C_{24} alkylthio, C_5 - C_{12} cycloalkyl, C_5 - C_{12} cycloalkoxy, C_5 - C_{12} cycloalkylthio, C_2 - C_{24} alkenyl, C_6 - C_{24} aryl, C_7 - C_{25} aralkyl, C_6 - C_{24} aryloxy, C_6 - C_{24} arylthio, thienyl, benzo[b]thienyl, dibenzo[b,d]thienyl, thianthrenyl, furyl, furfuryl, 2H-pyran, benzofuranyl, isobenzofuranyl, benzimidazolyl, benzothiazolyl, dibenzofuranyl, phenoxythiyl, pyrrolyl, imidazolyl, pyrazolyl, pyridyl, bipyridyl, triazinyl, pyrimidinyl, pyrazinyl, pyridazinyl, indolizynyl, isoindolyl, indolyl, indazolyl, purinyl, quinolizynyl, quinolyl, isoquinolyl, phthalazinyl, naphthyridinyl, quinoxalynyl, quinazolinyl, cinnolynyl, pteridinyl, carbazolyl, carbolinyl, benzotriazolyl, benzoxazolyl, phenanthridinyl, acridinyl, perimidinyl, phenanthrolinyl, phenazinyl, isothiazolyl, phenothiazinyl, isoxazolyl, furazanyl or phenoxazinyl, O-thienyl, O-benzo[b]thienyl, O-dibenzo[b,d]thienyl, O-thianthrenyl, O-furyl, O-furfuryl, O-2H-pyran, O-benzofuranyl, O-isobenzofuranyl, O-benzimidazolyl, O-benzothiazolyl, O-dibenzofuranyl, O-phenoxythiyl, O-pyrrolyl, O-imidazolyl, O-pyrazolyl, O-pyridyl, O-bipyridyl, O-triazinyl, O-pyrimidinyl, O-pyrazinyl, O-pyridazinyl, O-indolizynyl, O-isoindolyl, O-indolyl, O-indazolyl, O-purinyl, O-quinolizynyl, O-quinolyl, O-isoquinolyl, O-phthalazinyl, O-naphthyridinyl, O-quinoxalynyl, O-quinazolinyl, O-cinnolynyl, O-pteridinyl, O-carbazolyl, O-carbolinyl, O-benzotriazolyl, O-benzoxazolyl, O-phenanthridinyl, O-acridinyl, O-perimidinyl, O-phenanthrolinyl, O-phenazinyl, O-isothiazolyl, O-phenothiazinyl, O-isoxazolyl, O-furazanyl or O-

ph noxaziny, S-thi nyl, S-benzo[b]thienyl, S-dib nzo[b,d]thienyl, S-thianthrenyl, S-furyl, S-furfuryl, S-2H-pyranyl, S-benzofuranyl, S-isobenzofuranyl, S-benzimidazolyl, S-benzothiazolyl, S-dibenzofuranyl, S-phenoxythiiny, S-pyrrolyl, S-imidazolyl, S-pyrazolyl, S-pyridyl, S-bipyridyl, S-triazinyl, S-pyrimidinyl, S-pyrazinyl, S-pyridazinyl, S-indoliziny, S-isoindolyl, S-indolyl, S-indazolyl, S-puriny, S-quinoliziny, S-quinolyl, S-isoquinolyl, S-phthalazinyl, S-naphthyridiny, S-quinoxaliny, S-quinazoliny, S-cinnoliny, S-pteridinyl, S-carbazolyl, S-carboliny, S-benzotriazolyl, S-benzoxazolyl, S-phenanthridiny, S-acridiny, S-perimidiny, S-phenanthroliny, S-phenaziny, S-isothiazolyl, S-phenothiaziny, S-isoxazolyl, S-furazanyl or S-phenoxaziny,

or

R_1 and R_2 , R_2 and R_3 , R_3 and R_4 or R_{100} and R_{200} , or R_{200} and R_{300} , R_{300} and R_{400} , independently of one another in each case together are divalent radicals, such as polycyclic radicals or 1,3-butadien-1,4-ylene or $-\text{CH}=\text{CH}-\text{NH}-$, the two last radicals forming an additional fused-on 5- or 6-membered ring, and

X_1 is a hydrazone or imine radical, with the proviso that, if R_1 , R_2 , R_3 and R_4 are hydrogen, or at least one R_1 , R_2 , R_3 or R_4 is methyl, the hydrazone radical is excluded, or, if R_1 , R_2 , R_3 or R_4 is hydrogen, X_1 is not phenylimine- or 4-dimethylamine-phenylimine, or X_1 is a methylene radical,



in which

Q_3 is a primary or secondary amine radical and Q_4 is hydrogen or C_1-C_{24} alkyl, $-\text{CO}-(C_1-C_{24}\text{alkyl})$, $-\text{CO}-\text{O}-(C_1-C_{24}\text{alkyl})$, C_1-C_{24} alkoxy, C_1-C_{24} alkylthio, C_5-C_{12} cycloalkyl, C_5-C_{12} cycloalkoxy, C_5-C_{12} cycloalkylthio, C_2-C_{24} alkenyl, C_6-C_{24} aryl, $-\text{CO}-\text{O}-(C_6-C_{24}\text{aryl})$, $-\text{CO}-(C_6-C_{24}\text{aryl})$, C_6-C_{24} aryloxy, a primary or secondary amine radical, C_6-C_{12} arylthio, C_7-C_{25} aralkyl, thienyl, benzo[b]thienyl, dibenzo[b,d]thienyl, thianthrenyl, furyl, furfuryl, 2H-pyranyl, benzofuranyl, isobenzofuranyl, benzimidazolyl, benzothiazolyl, dibenzofuranyl, phenoxythiiny, pyrrolyl, imidazolyl, pyrazolyl, pyridyl, bipyridyl, triazinyl, pyrimidinyl, pyrazinyl, pyridazinyl, indoliziny, isoindolyl, indolyl, indazolyl, puriny, quinoliziny, quinolyl, isoquinolyl, phthalazinyl, naphthyridiny, quinoxaliny, quinazoliny, cinnoliny, pteridinyl, carbazolyl, carboliny, benzotriazolyl, benzoxazolyl, phenanthridiny, acridiny, perimidiny, phenanthroliny, phenaziny, isothiazolyl, phenothiaziny, isoxazolyl, furazanyl or phenoxaziny O-thienyl, O-benzo[b]thienyl, O-dibenzo[b,d]thienyl, O-thianthrenyl, O-furyl, O-furfuryl, O-2H-pyranyl, O-benzofuranyl, O-isobenzofuranyl, O-benzimidazolyl, O-benzothiazolyl, O-dibenzofuranyl, O-

phen xythiiny, O-pyrrolyl, O-imidazolyl, O-pyrazolyl, O-pyridyl, O-bipyridyl, O-triazinyl, O-pyrimidinyl, O-pyrazinyl, O-pyridazinyl, O-indoliziny, O-isindolyl, O-indolyl, O-indazolyl, O-puriny, O-quinoliziny, O-quinolyl, O-isoquinolyl, O-phthalazinyl, O-naphthyridinyl, O-quinoxaliny, O-quinazoliny, O-cinnoliny, O-pteridinyl, O-carbazolyl, O-carboliny, O-benzotriazolyl, O-benzoxazolyl, O-phenanthridinyl, O-acridinyl, O-perimidinyl, O-phenanthroliny, O-phenazinyl, O-isothiazolyl, O-phenothiazinyl, O-isoxazolyl, O-furazanyl or O-phenoxazinyl S-thienyl, S-benzo[b]thienyl, S-dibenzo[b,d]thienyl, S-thianthrenyl, S-furyl, S-furfuryl, S-2H-pyranyl, S-benzofuranyl, S-isobenzofuranyl, S-benzimidazolyl, S-benzothiazolyl, S-dibenzofuranyl, S-phenoxythiiny, S-pyrrolyl, S-imidazolyl, S-pyrazolyl, S-pyridyl, S-bipyridyl, S-triazinyl, S-pyrimidinyl, S-pyrazinyl, S-pyridazinyl, S-indoliziny, S-isindolyl, S-indolyl, S-indazolyl, S-puriny, S-quinoliziny, S-quinolyl, S-isoquinolyl, S-phthalazinyl, S-naphthyridinyl, S-quinoxaliny, S-quinazoliny, S-cinnoliny, S-pteridinyl, S-carbazolyl, S-carboliny, S-benzotriazolyl, S-benzoxazolyl, S-phenanthridinyl, S-acridinyl, S-perimidinyl, S-phenanthroliny, S-phenazinyl, S-isothiazolyl, S-phenothiazinyl, S-isoxazolyl, S-furazanyl or S-phenoxazinyl,

or

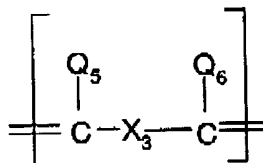
Q_3 and Q_4 together are a lactam, quinomethylene, hydantoin, acenaphthenequinone, azlactone, pyrazolonyl, barbituric acid, isoindolinone or isoindoline radical,

with the proviso that

Q_4 is not hydrogen and Q_3 is not a primary or secondary amine radical if R_3 is hydrogen, methoxy or hydroxyl and R_1 , R_2 and R_4 are hydrogen,

and

X_2 is thienyl, furyl, 2H-pyranyl, pyrrolyl, imidazolyl, pyrazolyl, pyridyl, triazinyl, pyrazinyl, pyridazinyl, morpholin, piperidyl, piperazinyl, or is



in which

X_3 is a single bond, C_6 - C_{24} arylene, thienylene, benzo[b]thienylene, dibenzo[b,d]thienylene, thianthrenylene, furylene, furfurylene, 2H-pyranylene, benzofuranylene, isobenzofuranylene, dibenzofuranylene, phenoxythienylene, pyrrolylene, imidazolylene, pyrazolylene, pyridylene, bipyridylene, benzimidazolylene, benzothiazolylene, triazinylene, pyrimidinylene, pyrazinylene, pyridazinylene, indoliziny, isindolylene, indolylene, indazolylene, puriny, quinoliziny, quinoly, isoquinoly, phthalazinylene, naphthyridiny, quinoxaliny, quinazoliny, cinnoliny,

pteridinylene, carbazolyl ne, carbolinylene, benzotriazolylen , benzoxazolylen , phenanthridinylene, acridinylene, perimidinylene, phenanthrolinylene, phenazinylene, isothiazolytene, phenothiazinylene, isoxazolytene, furazanylene or phenoxazinylene 1,2-phenylene, 1,3-phenylene, 1,4-phenylene or naphthylene, or a tetravalent polyether, polyimine, polyamine radical, or bi(C₆-C₂₄)arylene, bipyridylene, bipyrrolylen, piperazinedionylene, quinodimethylene, imidazolonylen, isoindolinylen, and anthraquinoylfuranoylen, C₂-C₂₄alkenylene, in which bi(C₆-C₂₄)arylene, bipyridylene, bipyrrolylen, piperazinedionylene, quinodimethylene, imidazolonylen, isoindolinylen, and anthraquinoylfuranoylen or C₂-C₂₄alkenylene are optionally interrupted by one or more intermediate units selected from the group consisting of -CH=CH-, -CH=N-, -N=N-, -CR₄₄R₄₂-, -CO-, -COO-, -OCO-, -NR₄₂CO-, -CONR₄₂-, -O-, -S-, -SO-, -SO₂- or -NR₄₂-,

in which

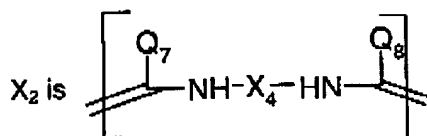
R₄₂ and R₄₄ independently of one another are hydrogen, C₁-C₂₄alkyl, C₅-C₁₂cycloalkyl, C₂-C₂₄alkenyl, C₆-C₂₄aryl, C₇-C₂₅aralkyl or thienyl, benzo[b]thienyl, dibenzo[b,d]thienyl, thianthrenyl, furyl, furfuryl, 2H-pyranyl, benzofuranyl, isobenzofuranyl, benzimidazolyl, benzothiazolyl, dibenzofuranyl, phenoxythiiny, pyrrolyl, imidazolyl, pyrazolyl, pyridyl, bipyridyl, triazinyl, pyrimidinyl, pyrazinyl, pyridazinyl, indoliziny, isoindolyl, indolyl, indazolyl, purinyl, quinoliziny, quinolyl, isoquinolyl, phthalazinyl, naphthyridinyl, quinoxaliny, quinazoliny, cinnoliny, pteridiny, carbazolyl, carboliny, benzotriazolyl, benzoxazolyl, phenanthridiny, acridiny, perimidiny, phenanthroliny, phenaziny, isothiazolyl, phenothiaziny, isoxazolyl, furazanyl or phenoxaziny,

with the proviso that if R₁, R₂, R₃, R₄, R₁₀₀, R₂₀₀, R₃₀₀, R₄₀₀ are all tert-butyl or all hydrogen, Q₅ and Q₆ are hydrogen, X₃ is not 1,4-phenylene, and

Q₅ and Q₆ independently of one another are hydrogen, C₆-C₂₄aryl, C₆-C₂₄aryloxy, C₁-C₂₄alkyl, C₁-C₂₄alkoxy, C₁-C₂₄alkylthio, C₅-C₁₂cycloalkyl, C₅-C₁₂cycloalkoxy, C₅-C₁₂cycloalkylthio, C₂-C₂₄alkenyl, C₆-C₂₄aryl, C₆-C₂₄aryloxy, C₆-C₂₄arylthio, thienyl, benzo[b]thienyl, dibenzo[b,d]thienyl, thianthrenyl, furyl, furfuryl, 2H-pyranyl, benzofuranyl, isobenzofuranyl, benzimidazolyl, benzothiazolyl, dibenzofuranyl, phenoxythiiny, pyrrolyl, imidazolyl, pyrazolyl, pyridyl, bipyridyl, triazinyl, pyrimidinyl, pyrazinyl, pyridazinyl, indoliziny, isoindolyl, indolyl, indazolyl, purinyl, quinoliziny, quinolyl, isoquinolyl, phthalazinyl, naphthyridiny, quinoxaliny, quinazoliny, cinnoliny, pteridiny, carbazolyl, carboliny, benzotriazolyl, benzoxazolyl, phenanthridiny, acridiny, perimidiny, phenanthroliny, phenaziny, isothiazolyl, phenothiaziny, isoxazolyl, furazanyl or phenoxaziny O-thienyl, O-benzo[b]thienyl, O-dibenzob[b,d]thienyl, O-thianthrenyl, O-furyl, O-furfuryl, O-2H-pyranyl, O-benzofuranyl, O-isobenzofuranyl, O-benzimidazolyl, O-benzothiazolyl, O-dibenzofuranyl, O-phenoxythiiny, O-pyrrolyl, O-imidazolyl, O-pyrazolyl, O-pyridyl, O-bipyridyl, O-triazinyl, O-pyrimidinyl, O-pyrazinyl, O-pyridazinyl, O-indoliziny, O-isoindolyl, O-indolyl, O-indazolyl, O-purinyl, O-quinoliziny, O-quinolyl, O-isoquinolyl,

O-phthalazinyl, O-naphthyridinyl, O-quinoxaliny, O-quinazolinyl, O-cinnoliny, O-pteridinyl, O-carbazolyl, O-carboliny, O-benzotriazolyl, O-benzoxazolyl, O-phenanthridinyl, O-acridinyl, O-perimidinyl, O-phenanthrolinyl, O-ph nazinyl, O-isothiazolyl, O-phenothiazinyl, O-isoxazolyl, O-furazanyl or O-phenoxazinyl S-thienyl, S-benzo[b]thienyl, S-dibenzo[b,d]thienyl, S-thianthrenyl, S-furyl, S-furfuryl, S-2H-pyranyl, S-benzofuranyl, S-isobenzofuranyl, S-benzimidazolyl, S-benzothiazolyl, S-dibenzofuranyl, S-phenoxythiiny, S-pyrrolyl, S-imidazolyl, S-pyrazolyl, S-pyridyl, S-bipyridyl, S-triazinyl, S-pyrimidinyl, S-pyrazinyl, S-pyridazinyl, S-indoliziny, S-isoindolyl, S-indolyl, S-indazolyl, S-puriny, S-quinoliziny, S-quinolyl, S-isoquinolyl, S-phthalazinyl, S-naphthyridinyl, S-quinoxaliny, S-quinazolinyl, S-cinnoliny, S-pteridinyl, S-carbazolyl, S-carboliny, S-benzotriazolyl, S-benzoxazolyl, S-phenanthridinyl, S-acridinyl, S-perimidinyl, S-phenanthrolinyl, S-phenazinyl, S-isothiazolyl, S-phenothiazinyl, S-isoxazolyl, S-furazanyl or S-phenoxazinyl,

or



in which

Q_7 and Q_8 independently of one another are Q_5 or Q_6 , and

X_4 is C_6 - C_{24} arylene, A_5 - A_{18} heteroarylene, a polymethylenide or divalent polyether, polyimine, polyamine radical, or bi(C_6 - C_{24})arylene, bipyridylene, bipyrrylylen, piperazinedionylen, quinodimethylene, imidazolonylen, isoindolinylen, and anthraquinoylfuranoylen C_2 - C_{24} alkenylen, in which bi(C_6 - C_{24})arylene, bipyridylene, bipyrrylylen, piperazinedionylen, quinodimethylene, imidazolonylen, isoindolinylen, and anthraquinoylfuranoylen or C_2 - C_{24} alkenylen are optionally interrupted by one or more intermediate units selected from the group consisting of -CH=CH-, -CH=N-, -N=N-, -CR₄₄R₄₂-, -CO-, -COO-, -OCO-, -NR₄₂CO-, -CONR₄₂-, -O-, -S-, -SO-, -SO₂- or -NR₄₂-,

or

